Remarks

Claims 12-31 are currently pending in this application.

Page 4 of the specification has been amended to indicate that the dicarboxylic acid must have at least 2 carbon atoms. Applicants are not aware of any dicarboxylic acid containing only 1 carbon atom. This was an obvious mistake which occurred during preparation of the application. Applicants respectfully request that the specification be amended to reflect the proper number of carbon atoms in dicarboxylic acids.

The claims have been amended to correct the number of carbon atoms in a dicarboxylic acid. Amendments appear in claim 13 and 19. Claims 12 and 18 have been amended to delete the limitation that both (a) and (b) have matching alkyl/alkenyl groups. This is a preferred embodiment, but is not critical to the invention.

Before discussing the rejections over the prior art, Applicants deem it prudent to set forth what they consider to be their invention.

The invention is directed to a composition comprising an alkyl and/or alkenyl oligoglycoside and a foam stabilizer selected through groups consisting of dicarboxylic acid monoesters, dicarboxylic acid monoester salts and mixtures thereof, and optionally an active ingredient.

The invention is based on the unexpected discovery that the addition of a dicarboxylic acid as monoester or a dicarboxylic acid monoester salt to an alk(en)yl oligoglycoside provides a surfactant composition with enhanced foam stabilization. The foam stabilizing effect of the addition of the diacid monoester or diacid monoester salt to the alk(en)yl oligoglycoside substantially improves the stability of the foam.

It is well known that alk(en)yl oligoglycosides have good foaming properties. However, the foam is not stable and the volume of foam is substantially reduced after it is produced and permitted to stand unagitated. This is particularly true in the present

sebum. Applicants respectfully submit that the foam stabilizing ability of the monoesters of dicarboxylic acid and the salts thereof was unknown and unexpected in the art. Applicants respectfully request the favorable consideration of the amended claims.

The claims stand rejected under 35 U.S.C. 103(a) as unpatentable over WO 96/15138 (hereinafter "WO") in combination with EP 258 814 (hereinafter "EP"). Applicants respectfully submit that WO and EP, whether considered alone or in combination, neither teach nor suggest the present invention.

WO discloses and claims an alkylpolyglycoside composition having improved tactile properties and reduced crystallization. The tactile properties and the reduced rate of crystallization is obtained by introducing an additive into the alkylpolyglycoside. The ratio of alkylpolyglycoside to additive is in a range of about 500:1to about 15:1

None of the additives set forth in the specification and claims is a monoester of a dicarboxylic acid wherein the ester group is formed by a fatty alcohol having from 6-22 carbon atoms. WO does not teach or suggest salts of the esters useful in the practice of the present invention.

The additives useful in WO are substantially different from the monoesters of dicarboxylic acid and the salts thereof useful in the practice of the present invention. Applicants respectfully submit there is neither teaching nor suggestion to one skilled in the art that the mono alkyl ester of a diacid or the salt therof would have any effect on the crystallization rate of an alkyl polyglycoside .

In addition, there is neither teaching nor suggestion in WO that the monoester of a dicarboxylic acid or salt thereof as disclosed in the present application or any of the compositions disclosed in WO would have any effect on the stability of an alk(en)yl polyglycoside foam. Applicants respectfully submit that WO bears no relation to the present invention.

EP is directed to surfactants comprising derivatives of bi- or tri- carboxylic hydroxy acids esterified with an organic compound selected from the group comprising etherified (C_6-C_{16}) alkyl polysaccharides containing from 2 to 6 monomeric saccharide units and etherified (C_6-C_{16}) hydroxy alkyl aliphatic polyalcohols containing from 2 to 16 hydroxyl radicals. The esterified polycarboxylic acid must contain at least one ester group which is etherified (C_6-C_{16}) alkyl polysaccharide containing from 2 to 6 monomeric saccharide units and etherified (C_6-C_{16}) hydroxy alkyl aliphatic polyalcohols containing from 2 to 16 hydroxyl radicals. Applicants respectfully submit that EP is not pertinent to the present invention.

The present invention utilizes monoesters of dicarboxylic acid and salts thereof which acids have been esterified with a (C_{6-22}) fatty alcohol. Applicants respectfully submit that EP neither teaches nor suggests esters of dicarboxylic acid or salts thereof esterified with a fatty alcohol containing from 6 to 22 carbon atoms.

The alcohols which are utilized to esterify the carboxylic acids in the EP composition are etherified materials containing many OH groups attached to the ester chain. Applicants respectfully submit that EP does not cure the deficiencies in WO and the references, whether considered alone or in combination, neither teach nor suggest the present invention.

Applicants submit that one skilled in the art having before him WO and EP would not be lead to the utilization of the monoester of a dicarboxylic acid and salts thereof as a foam stabiizer for an alkyloligoglycoside. Applicants respectfully submit that the rejection under 35 U.S.C. 103(a) is untenable and respectfully request that the rejection be reconsidered and withdrawn.

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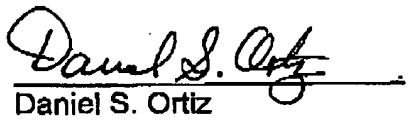
In view of the amendments to the claims and the above discussion, Applicants respectfully submit that the application is in condition for allowance and favorable consideration is requested.

Respectfully submitted,



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